THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF US 11 AND GOVERNOR LANE BLVD.\ HOFFMAN DRIVE IN WASHINGTON COUNTY. THE WORK IS NECESSITATED BY THE ADDITION OF A NORTHBOUND EXLUSIVE-PERMISSIVE LEFT TURN PHASE FOR US 11. US 11 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION. THE INTERSECTION WILL ASLO BE UPGRADED TO USE L.E.D. SIGNAL HEADS, VIDEO CAMERA DETECTION, NORTH AND ONE WAY OPTICOM FOR FIRE PRE-EMPTION WILL BE INCLUDED, THE PEDESTRIAN CROSSING WILL INCLUDE NEW ADA RAMPS WITH APS PEDESTRIAN EQUIPMENT AND COUNTDOWN SIGNALS.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULLY-TRAFFIC-ACTUATED MODE WITH AN EXCLUSIVE-PERMISSIVE LEFT TURN PHASE FOR NORTH AND SOUTHBOUND US 11 APPROACHES. THE SIDE STREET APPROACHES WILL OPERATE CONCURRENTLY. AN ALTERNATE PEDESTRIAN PHASE FOR CROSSING THE SOUTH LEG OF US 11 WILL REMAIN, FIRE PRE-EMPTION PHASES WILL BE INCLUDED FOR BOTH NORTH AND SOUTH BOUND APPROACHES OF US 11.

APS NOTES

TO CROSS US 11

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS US 11 AT GOVERNOR LANE."
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE

CONTACT PERSONS FOR DISTRICT 6 ARE AS FOLLOWS:

MR. GEORGE H. SMALL ASSISTANT DISTRICT ENGINEER - TRAFFIC

MR. ANTHONY CRAWFORD ASSISTANT DISTRICT ENGINEER - MAINTENANCE

(301) 729-8457

MR. ROBERT ROWAN

(301) 729-8444

ASSISTANT DISTRICT ENGINEER - UTILITIES (301) 729-8439

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR.

CHIEF, TRAFFIC OPERATIONS (410) 787-7630

MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS

(410) 787–7631 MR. ED RODENHIZER TEAM LEADER SIGNAL OPERATIONS (410) 787-7652

MR. EUGENE BAILEY TEAM LEADER SIGN OPERATIONS

MS. DARLENE EIDE SUPPLY OFFICE SIGNAL SHOP WAREHOUSE

(410) 787-7668

(410) 787-7676

ITEM NO.

THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY

ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY

NONE

EQUIPMENT LIST "C"

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

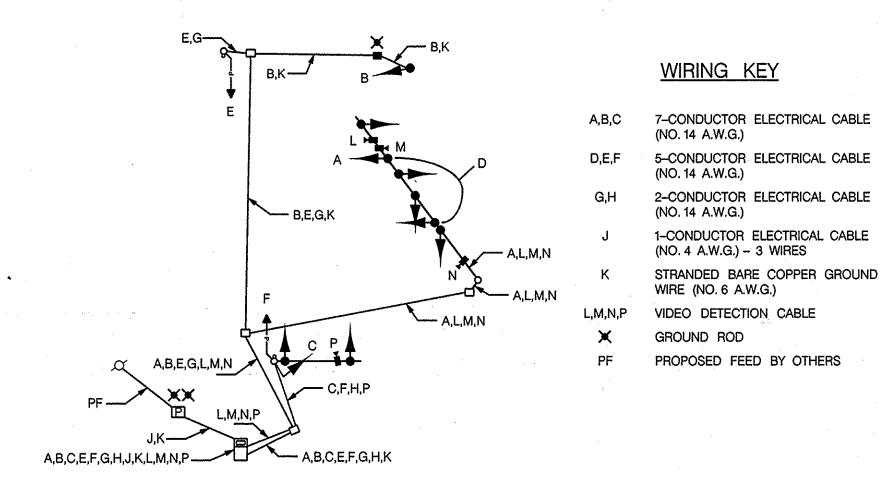
ITEM NO	O. QUANTITY	DESCRIPTION	
* 9086	1 EA	VIDEO DETECTION EQUIPMENT, 1-4 CAMERAS (TO BE INSTALLED BY SHA SH	OF
9570	6.25 SF	SHEET ALUMINUM GROUND MOUNTED SIGN	-
	1 EA	R3-7R (30" x 30")	
9571	7.5 SF	SHEET ALUMINUM MAST ARM / POLE MOUNTED SIGN	
	1 EA	R3-7R (30" x 36")	-
•	2 EA	R10-3(1) PUSHBUTTON TO CROSS US 11	
	•		

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

BID IT	EM NO.	QUANTITY	<u>DESCRIPTION</u>
	001	EA	MAINTENANCE OF TRAFFIC
		<u> </u>	
2	002	1 CY	TEST PIT EXCAVATION
5	001	180 LF	5 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC MARKING
5	001	90 LF	5 INCH HEAT APPLIED YELLOW PERMANENT PREFORMED THERMOPLASTIC MARKING
5	002	770 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
5	004	160 LF	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
5	005	100 LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
. 5	006	4 EA	FURNISH AND INSTALL HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
			LETTERS
5	007	2 EA	FURNISH AND INSTALL HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
•		•	ARROWS
. 6	002	14 LF	STANDARD TYPE "A" COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
. 6	003	125 SF	5 INCH CONCRETE SIDEWALK
6	004	40 SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
8	001	30 EA	FURNISH AND INSTALL 12 IN L.E.D. SIGNAL HEAD SECTION
8	002	1 EA	2 WIRE CENTRAL CONTROL UNIT
8	004	6 EA	FURNISH AND INSTALL 8 IN. L.E.D. SIGNAL HEAD SECTION
. 8	005	1 EA	ADJUST EXISTING HANDHOLE TO GRADE INCLUDING COLLAR
8	008	2 EA	AUDIBLE /TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8	009	1 EA	FURNISH AND INSTALL BREAKAWAY PEDESTAL POLE - 10 FOOT
	011	1 EA	CONDUIT BEND IN EXISTING FOUNDATION - 2 INCH PVC
8	014	2 EA	FURNISH AND INSTALL L.E.D. 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
. 8	021	2 EA	FURNISH AND INSTALL NON-INVASIVE DETECTOR WITH 500 FT. LEAD IN CABLE
8	022	1 EA	REMOVE AND DISPOSE MATERIAL AND EQUIPMENT PER ASSIGNMENT
8	027	4 EA	FURNISH AND INSTALL VIDEO DETECTION CAMERA AND CABLE UP TO 500 FEET
8	035	40 LF	FURNISH AND INSTALL SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT 3 INCH - SLOTTED
8	036	10 LF	FURNISH AND INSTALL SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT 3 INCH - TRENCHED
. 8	038	15 LF	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 INCH x 4 INCH
8	040	14 SF	INSTALLATION OF OVERHEAD OR GROUND MOUNTED SIGN - INCLUDING ALL HARDWARE
8	042	200 LF	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8	044	1 EA	FURNISH AND INSTALL METERED SERVICE PEDESTAL - EMBEDDED
8	046	30 LF	FURNISH AND INSTALL ELECTRICAL CABLE 1 - CONDUCTOR (NO. 4 AWG)
8	048	5 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8	049	1 EA	FURNISH AND INSTALL DISCRIMINATOR MODULE, 4 CHANNEL, NO. 764
8	051	2 EA	FURNISH AND INSTALL OPTICOM NO. 721 DETECTOR EYE
. 8	052	400 LF	FURNISH AND INSTALL 4 CONDUCTOR OPTICOM CABLE
	055	200 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2 - CONDUCTOR (NO. 14 AWG)
· , 8	057	20 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5 - CONDUCTOR (NO. 14 AWG)
8	058	480 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7 - CONDUCTOR (NO. 14 AWG)
	•		· · · · · · · · · · · · · · · · · · ·

WIRING DIAGRAM



PHASING CHART

PHASE 1 & 5	R ◆G	+ G	R	R G-	R	R ◆G	R	R	R	R	DON'T WALK	DON'T WALK	<i></i>
1 & 5 CHANGE	PHAS	E 1 & 5	MAY	CHANG	E TO	PHASE	1 & 6,	2 & 5,	OR 2 (ፄ 6			√ ,
PHASE 1 & 6	4 G−	დ <mark> </mark> ტ	G	R	R	R	R	R	R	R	DON'T WALK	DON'T WALK	<i>† †</i> .
1 & 6 CHANGE	G ◆Y−	G ◆Y	G	R	R	R	R	R	R	R	DON'T WALK	DON'T WALK	
PHASE 2 & 5	R	R	R	+ G−	G	G ←G−	R	R	R	R	DON'T WALK	DON'T WALK	,
2 & 5 CHANGE	R	R	R	GY-	G	G ← Y−	R	R	R	R	DON'T WALK	DON'T WALK	¹ √ ,
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	DON'T WALK	DON'T WALK	4
2 & 6 CHANGE	·Υ	Υ	Υ	Y	Υ	Υ	R	R	Ř	R	DON'T WALK	DON'T WALK	
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G	DON'T WALK	DON'T WALK	1
4 & 8 CHANGE	R	R	R	R	R	R	Υ	Υ	Υ	Υ	DON'T WALK	DON'T WALK	.
ALT 4 & 8	R	R	R	,R	R	- R	G	G	G	G	WALK	WALK:	9
ALT 4 & 8 PED CLEAR	R	R	R	R	R	R	G	G	G	G	FL \ WALK	FL \ WALK	
ALT 4 & 8 CHANGE	R	R	R	R	R	R	Υ	Υ	Υ	Υ	DON'T WALK	DON'T WALK	[s]
FIRE PRE-EMPTION "A" (PHASE 2 & 5)	R	R	R	G ← G−	G	G ← G	R	R	R	R	DON'T WALK	DON'T WALK	·
FIRE PRE-EMPTION "B" (PHASE 1 & 6)	- G	- - - -	G	R	R	R	R	R	R	R	DON'T WALK	DON'T WALK	
FLASHING OPERATION	FL\Y	FL\Y	FL\Y	FL\Y	FL\Y	FL\Y	FL\R	FL\R	FL\R	FL\R	DARK	DARK	+ + +

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION GENERAL INFORMATION PLAN US 11 AND GOVERNOR LANE BLVD/ HOFFMAN DRIVE

WILLIAMSPORT, MARYLAND

WASHINGTON

21001102.11

TRAFFIC CONCEPTS, INC.

325 Gambrills Road Suite E Gambrills, MD 21054 (410) 923-7101 FAX: (410) 923-6473

SCALE NONE DATE ____5-29-2008____ CONTRACT NO. AX1425185 DESIGNED BY LOGMILE K. SCHMID//en/ CHECKED BY DRAWING NO. TS-XXX GI SHEET NO. 2 OF 2

FILE PATH: L:\1500\1566\Task 118- US 11@ Governor\Dgn\SIGNAL.dgn DATE: Thursday, May 29, 2008 AT 11:13 AM

EMAIL: TRAFFIC@TRAFFIC-CONCEPTS.COM

TOD No. AX142-19 SHA No. WA337A54/B54